

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION

I/P ENGINE, INC.

Plaintiff,

v.

AOL, INC.,
GOOGLE INC.,
IAC SEARCH & MEDIA, INC.,
GANNETT COMPANY, INC., and
TARGET CORPORATION,

Civil Action No. 2:11-cv-512

Defendants.

DECLARATION OF KEITH R. UGONE, PH.D. ON POST-JUDGMENT ROYALTIES

I, Keith R. Ugone, Ph.D., declare as follows:

1. I submitted an expert report and provided oral testimony at trial in this matter on behalf of Defendants Google Inc., AOL, Inc., IAC Search & Media, Inc., Gannett Co., Inc. and Target Corp. ("Defendants"). I described my qualifications during my trial testimony¹ and in my expert report. I have personal knowledge of the facts set forth in this Declaration. If called upon to testify, I could and would certify competently to these facts.

2. I have been asked to provide my opinion and certain calculations with respect to Plaintiff I/P Engine's motion for a post-judgment royalty. I also have been asked to review the Declaration of Stephen L. Becker, Ph.D. Regarding Ongoing Royalties ("Becker Declaration").²

3. I understand that the jury found claims 10, 14, 15, 25, 27, and 28 of United States Patent No. 6,314,420 and claims 1, 5, 6, 21, 22, 26, 28, and 38 of United States Patent No. 6,775,664 infringed and not invalid.³ I further understand that the jury found that the hypothetical negotiation at issue for purposes of past damages would have resulted in a 3.5% running royalty.⁴ The jury awarded total damages of \$30,496,155, attributed as follows: Google - \$15,800,000; AOL-\$7,943,000; IAC - \$6,650,000; Target - \$98,833; and Gannett - \$4,322.⁵ At trial, I/P Engine asserted that 20.9% of the revenues for the accused products is the appropriate royalty base to which the 3.5% royalty should be applied,⁶ but the amounts the jury awarded do not equate to a royalty base apportioned at 20.9% of revenue.⁷

¹ Trial Tr., pp. 54-58.

² D.N. 824.

³ D.N. 789.

⁴ D.N. 789, p. 11.

⁵ D.N. 789, p. 11.

⁶ D.N. 793, p 11.

⁷ D.N. 806, pp. 4-5.

I. Date and Parties of the Hypothetical Post-Judgment Royalty Negotiation

4. The opinions presented in my prior report in this case provide a thorough analysis of a hypothetical negotiation between Lycos and Google in or around March 2004. This declaration provides my opinion of the result of a hypothetical negotiation between I/P Engine and Google for a license to the patents-in-suit on November 20, 2012, the date of the entry of judgment.⁸ Therefore, for the purpose of determining a post-judgment royalty in this matter, I have assumed a hypothetical negotiation in November 2012 between I/P Engine (i.e., the owner of the patents-in-suit at this time) and Google. Thus, more than eight years separates the pre-trial hypothetical negotiation in my prior report and the hypothetical negotiation at issue in the determination of a post-judgment royalty.

II. Changed Circumstances Between 2004 and 2012

5. Although much of the discussion of the 2004 hypothetical negotiation in my previous report would not be affected, events associated with the change in the date of the hypothetical negotiation would affect some significant aspects of the analysis. A summary of the changed circumstances is provided below.

5.1 The change in the hypothetical negotiation date alters the parties to that negotiation. The patents-in-suit were owned by I/P Engine, rather than Lycos, in 2012.

5.2 The change in the hypothetical negotiation date affects the relative weights assigned to the real-world license agreements in the record.

a. Dr. Becker based his 3.5% running royalty rate opinion at trial upon several license agreements for a group of patents owned by Overture⁹ that were executed during 2005.¹⁰

⁸ D.N. 823, p. 7 n.3.

⁹ Trial Tr., pp. 784-785.

¹⁰ D.N. 824, p. 5.

b. The change in the hypothetical negotiation date renders other agreements more probative to the outcome of the negotiation. As described in my report , Google purchased several patents from Carl Meyer in 2008. As also described in my report, Lycos received offers to purchase the patents-in-suit in 2008-2009 and 2011, and eventually sold the patents to I/P Engine in 2011 for \$3.2 million.¹¹

5.3 The change in hypothetical negotiation date renders inapplicable any apportionment factors derived using data over six years prior to the November 2012 hypothetical negotiation. Prudent negotiators would not use six-year-old apportionment data when negotiating a license agreement. In addition, the change in hypothetical negotiation date reduces the relative importance of the patents-in-suit to Google's systems because Google continuously implements improvements and updates.

5.4 The change in hypothetical negotiation date makes the negotiation closer in time to Google's actual implementation of alternative designs to the patents-in-suit. I have been informed, as described more fully below, that by the time of the jury verdict, Google had begun implementing changes to the accused products to reduce and eventually remove all accused functionality that practiced the "filtering" steps of the asserted claims.

6. One aspect of the hypothetical negotiation that would not change is the assumption that the patents are valid and infringed. I understand that I/P Engine has argued that the jury's finding of validity and infringement would strengthen I/P Engine's negotiating position in 2012 relative to Lycos' in 2004. However, as stated in my previous report and Dr. Becker's report, and as testified to by Dr. Becker and myself, the parties to the 2004 hypothetical negotiation would have conclusively assumed that the patents are valid and infringed.¹² The jury's verdict would simply confirm these assumptions. Confirming what was already assumed does not alter the analysis or alter the weight placed upon that consideration.

¹¹ Trial Tr., pp. 1582-1583; D.N. 534 (Ugone Report), pp. 40-45; Declaration of Margaret P. Kammerud in Support of Defendants' Opposition to Plaintiff's Motion for Post-Judgment Royalties ("Kammerud Decl."), Ex. 1.

¹² See, e.g., Trial Tr., pp. 785-786, 1570-71.

III. Outcome of Hypothetical Negotiation Between Google and I/P Engine in 2012

7. The outcome of a November 2012 hypothetical negotiation between Google and I/P Engine can be evaluated in terms of the non-exclusive list of factors in *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970). I consider each of the relevant factors in the context of a November 2012 hypothetical negotiation below.

A. Georgia Pacific Factor 1: The royalties received by the patentee for the licensing of the patent in suit.

8. Prior to the sale to I/P Engine, Lycos had licensed the patents-in-suit. [REDACTED]

9. At the end of 2008, Lycos began receiving offers to purchase its entire patent portfolio.¹⁷ By 2011, the offers were no longer for the entire portfolio, but rather for one specific patent family that included the patents-in-suit. These offers evolved into a bidding process, which led to Lycos' sale of this patent family to Smart Search Labs (i.e., the predecessor to I/P Engine) in 2011 for a lump-sum payment of \$3.2 million.¹⁸ [REDACTED]

¹³ Kammerud Decl., Ex. 2.

¹⁴ Kammerud Decl., Ex. 3.

¹⁵ Kammerud Decl., Ex. 4..

¹⁶ Kammerud Decl., Ex. 5.

¹⁷ D.N. 534 (Ugone Report), pp. 40-41; Kammerud Decl., Ex. 23, pp. 30 & 122-40.

¹⁸ Trial Tr., pp. 1582-1583; D.N. 534 (Ugone Report), pp. 42-45; DX-019.

¹⁹ D.N. 534 (Ugone Report), p. 42; Kammerud Decl., Ex. 23, pp. 135 & 140.

[REDACTED]
[REDACTED]
[REDACTED]
²¹

10. The \$3.2 million lump-sum payment that resulted from the bidding process among Altitude Capital Partners, Mr. Staykov, and Hudson Bay Capital (on behalf of Smart Search Labs) provides a value indicator of the patent portfolio that included the patents-in-suit close to the time of the November 2012 hypothetical negotiation.²² That amount was achieved as a result of a competitive bidding process by sophisticated participants. It therefore is a highly relevant indicator of the value of the patents-in-suit. Further, the sale of the patents occurred well after it was publicly known that Google implemented the accused AdWords system.²³ The \$3.2 million lump-sum payment likely overstates the value for a license to the patents-in-suit because the sale of a patent family commands a higher value than a license to the two patents at issue.

11. In addition, I have found no evidence that rights in the patents-in-suit have ever been exchanged for a running royalty. Therefore, the aforementioned agreements strongly suggest that the hypothetical negotiation would result in a lump-sum payment for a license to the patents-in-suit.

12. Relative to a 2004 hypothetical negotiation, more emphasis would be placed upon I/P Engine's purchase of the patents-in-suit from Lycos – which occurred close to the time of the

²⁰ D.N. 534 (Ugone Report), p. 41; Kammerud Decl., Ex. 6.

²¹ D.N. 534 (Ugone Report), p. 43; Kammerud Decl., Ex. 23, p. 135.

²² D.N. 534 (Ugone Report), pp. 43-45; Kammerud Decl., Exs. 7, 8, 9.

²³ See, e.g., D.N. 800, pp. 8-9.

2012 hypothetical negotiation and would be aligned more closely with current underlying economic and technological conditions.

B. *Georgia-Pacific Factor Two: Royalties paid by Google for the use of other comparable patents*

13. On December 18, 2008, Google entered into a patent purchase agreement with Carl Meyer in which Google acquired three U.S. patents and two U.S. patent applications for a lump-sum payment of \$3.55 million.²⁴ Mr. Maccoun testified that the acquired technology relates to determining “which advertisements are most effective when used on the internet.”²⁵ Dr. Unger testified that the technology in these patents were comparable to the patents-in-suit because they described a system “for placing ads across multiple different locations and sites and it tracks the click-through rate . . . and it filters out and say’s [sic] don’t show ads that have low click-through rates.”²⁶

14. Google's \$3.55 million lump-sum payment to Carl Meyer provides an indicator of Google's willingness to pay for a license to the patents-in-suit close to the time of the November 2012 hypothetical negotiation. In addition, the Carl Meyer agreement is a patent purchase, as opposed to a patent license. A patent purchase provides more rights than a non-exclusive license. Therefore, Google's execution of the Carl Meyer agreement is a conservative indicator of the outcome of the 2012 hypothetical negotiation.

²⁴ Trial Tr., pp. 1567, 1595-1596; DX-090.

²⁵ D.N. 534 (Ugone Report), p. 77; D.N. 652 (Maccoun Dep.) at 63.

²⁶ Trial Tr., pp. 1274-1277.

15. The Carl Meyer agreement also suggests that the hypothetical negotiation would have resulted in a lump-sum royalty. Further, as the testimony at trial and in Dr. Becker's deposition confirmed, Google has a strong preference for lump-sum agreements.²⁷

16. I further note that, although the Court ruled during trial that other patent license agreements Google has entered into could not be considered by the jury in determining the outcome of the 2004 hypothetical negotiation, through these agreements and other evidence, at the 2012 hypothetical negotiation Google would have affirmed its practice of entering into lump-sum payment patent agreements. As more fully explained in my expert report, and as would have been explained by Google during the 2012 hypothetical negotiation in its discussions with I/P Engine, Google has entered into lump-sum patent license and/or purchase agreements with Disney for \$5 million, [REDACTED]
[REDACTED]
[REDACTED]

²⁸

17. Relative to a 2004 hypothetical negotiation, more emphasis would be placed upon the Carl Meyer agreement – which occurred close to the time of the 2012 hypothetical negotiation.

C. *Georgia-Pacific Factor Three: The nature and scope of the license*

18. I/P Engine and Google would have negotiated a fully paid-up, freedom-to-operate, non-exclusive U.S. license to the patents-in-suit. No technical information or know how would be transferred with the license agreement. In addition, as with the original March 2004 hypothetical negotiation, significant ongoing contributions by Google would be required to

²⁷ Trial Tr. Day 9 p. 73, 84 & 89; Kammerud Decl., Ex. 22, pp. 121-22.

²⁸ D.N. 534 (Ugone Report), pp. 75-79; Kammerud Decl., Exs. 10-17.

maintain the Accused Products (including hardware infrastructure and software programming).²⁹

Also, a license to the patents-in-suit would not provide Google with the specific method of computing the pCTRs on a going forward basis that allegedly are used in the Accused Functionality.³⁰ The license would give Google full use of the patents-in-suit, including making Google's technology available to its partners such as AOL, IAC, Gannett, and Target.³¹ Because the comparable agreements in the record (i.e., the sale of the patents by Lycos to I/P Engine and the Carl Meyer agreement) involve the transfer of title, this suggests they are a conservative indicator of the value of a non-exclusive license to the patents-in-suit.

D. *Georgia-Pacific Factor Four: The licensor's established policy regarding licensing*

19. I/P Engine's willingness to license its patents is evidenced by [REDACTED]

[REDACTED]³² I/P Engine therefore does not have a policy of maintaining exclusive use of or not licensing the patents-in-suit. In addition, I/P Engine was formed for the purpose of licensing the patents-in-suit. Further, I/P Engine would benefit significantly from licensing its patents to Google given Google's strong brand name and commercial success. I/P Engine therefore would have a strong incentive to agree to a license with Google and to encourage Google to use the patented technology.

²⁹ See, e.g., Trial Tr., pp. 1048-1049 (discussing how Google makes "about two dozen or so very significant changes to AdWords" each quarter and constantly works to improve the system), 1050-1051 (discussing work on serving systems, computers and data centers necessary to return ads quickly), 1091-1101 (discussing generally the infrastructure involved with AdWords), 1117 (discussing changes to SmartAds models); D.N. 534 (Ugone Report), pp. 59-60, 64-65.

³⁰ Trial Tr., pp. 709-710.

³¹ Trial Tr., pp. 850, 1621.

³² Kammerud Decl., Ex. 5.

E. *Georgia-Pacific* Factor Five: The commercial relationship between I/P Engine and Google

20. I/P Engine and Google did not have a commercial relationship. Nevertheless, I/P Engine would have recognized the advantages of licensing the patents-in-suit to Google in the form of licensing revenue and benefits from Google's strong brand name and commercial success, as described above.

21. Further, by the time of the verdict in this case, I/P Engine and Google had been adversaries in a contentious lawsuit. This consideration provides additional support that the parties would have agreed to a lump-sum royalty because a lump-sum structure reduces the likelihood of further disputes between the parties. A running royalty creates the possibility that there could be a disagreement regarding the appropriate royalty base (or apportioned royalty base) to which the agreed upon royalty rate should be applied. It is possible that the natural evolution of products (as newer technologies, features, or functionalities are adopted) could alter the licensors' and licensees' perception of whether their earlier agreed upon royalty rate (or apportionment factor) remained appropriate to apply to certain products or services or whether the earlier agreed upon royalty rate should be applied to additional products. These disagreements would not surface under a lump-sum royalty payment structure.

F. *Georgia-Pacific* Factor Six: The extent of derivative or convoyed sales

22. I/P Engine agrees that there are no convoyed sales associated with the patents-in-suit. (Kammerud Decl., Ex. 24, PDX071; Tr. 795.)

G. *Georgia-Pacific Factor Seven: The duration of the patent and the term of the license*

23. It is my understanding that the expiration date of the patents-in-suit is April 4, 2016.³³ The hypothetical negotiation in November 2012 would be for a license that lasted less than four years.³⁴ I also understand that the Carl Meyer patents had more than ten years left before expiration when Google purchased them.³⁵ This suggests that these agreements are a conservative indicator of the outcome of the hypothetical negotiation, since they were for rights in patents with longer remaining lives.

24. In addition, I understand that Google has changed the accused systems to remove the functionality I/P Engine accused of infringement.³⁶ I further understand that Google had already begun implementing these changes before the jury reached a verdict and before entry of final judgment.³⁷ I am not aware of any opinion that I/P Engine has offered that this redesigned system infringes the patents-in-suit. In the event that I/P Engine offers such an opinion, I reserve the right to supplement this declaration. I therefore assume for this analysis that the redesigned system does not infringe. During the hypothetical negotiation, therefore, Google would have adopted the position that it only needed a license to its activities for, at most, until May 2013 – approximately seven months. This would place downward pressure on the aggregate reasonable royalty payment.

³³ D.N. 823, p. 1.

³⁴ By contrast, I understand that the patents had approximately five years left when I/P Engine purchased them in 2011.

³⁵ DX-90.

³⁶ Furrow Declaration.

³⁷ Trial Tr., p. 1069 (“We are working on changes to our system now whereby we will no longer need to limit the number of ads that we look at for these purposes.”).

H. *Georgia-Pacific* Factors Eight Through Eleven and Thirteen: The established profitability of the patented product and its commercial success; The utility and advantages of the patented product over other modes or devices; The nature of the patented invention and the benefits to those who have used it; The extent and value of Google's use of the invention; and The portion of the realizable profit credited to the invention as distinguished from non-patented elements

25. Factors eight through eleven and thirteen are directed to measuring the value of the patents-in-suit in relation to the prior art and the benefits the licensee would gain from a license. They can be appropriately considered together in this context.

26. As discussed extensively in my expert report in this case, the commercial success of the Accused Products is attributable to Google's contributions rather than to the claimed teachings of the patents. This observation continues to be true as of the November 2012 hypothetical negotiation. Google had achieved significant commercial success prior to the first alleged infringement, and Google has continued to make significant contributions to the commercial success of the Accused Products independent of the claimed teachings of the patents-in-suit.³⁸

27. Significant contributions made by Google to the Accused Products' commercial success include (but are not limited to) numerous features and benefits of the Accused Products unrelated to the patents-in-suit, significant investments in hardware and software infrastructure, and Google's auction system.³⁹

³⁸ See, e.g., Trial Tr., pp. . 1048-1049 (discussing how Google makes "about two dozen or so very significant changes to AdWords" each quarter and constantly works to improve the system), 1117 (discussing changes to SmartAds models); D.N. 534 (Ugone Report), pp. 64-65.

³⁹ See, e.g., Trial Tr., pp. 710-11 (discussing the auction system, as well as ranking and pricing of advertisements, all of which was not accused of infringement), 1091-1101 (discussing generally the infrastructure involved with AdWords), 1117 (discussing changes to SmartAds models); D.N. 534 (Ugone Report), pp. 59-65.

28. As with the original March 2004 hypothetical negotiation, at the time of the November 2012 hypothetical negotiation, I/P Engine's sole contribution to the commercialization of a product practicing the claims of the patents-in-suit would be a bare (or naked) patent licensing agreement. Significant contributions beyond a bare license were required for Google to implement the Accused Functionality. A post-November 2012 license would not provide Google with any of the practical requirements for implementing the Accused Functionality, including necessary hardware infrastructure or software programming. The parties would have understood that the claimed teachings of the patents were not sufficient to obtain commercial success.

29. For example, I understand that one component of the Accused Functionality is the calculation of a predicted clickthrough rate (pCTR).⁴⁰ It is my understanding that Smart Ads' *specific computation* of pCTRs (in isolation) is not accused of infringing the patents-in-suit.⁴¹ I/P Engine has alleged that Google infringes the patents-in-suit through the use of pCTR to disable or promote advertisements.⁴² I further understand that pCTRs play a broader role in the Accused Products beyond merely promoting and disabling advertisements.⁴³

30. The limited contribution of the patents-in-suit to the success of the Accused Products is demonstrated by the different levels of profitability enjoyed by the different products that I/P Engine has accused. For example, in addition to Google's search advertising systems, AOL's "Advertising.com Sponsored Listings" was been accused of infringing the Patents-in-Suit. However, there is a significant variation in the levels of success of different search

⁴⁰ See, e.g., Trial Tr., pp. 463-464.

⁴¹ Trial Tr., pp. 709-710.

⁴² See, e.g., Trial Tr., pp. 463-464.

⁴³ See, e.g., Trial Tr., pp. 709-711, 1616.

advertising systems alleged to employ the same patented technology (i.e., Google's systems vs. AOL's). Thus, the success of the Google's search advertising systems is driven by Google-specific contributions. This consideration would be even more evident as of the November 2012 hypothetical negotiation relative to the March 2004 hypothetical negotiation.

31. Based upon discussion with Google engineer Bartholomew Furrow, it is my understanding that at the time of the November 2012 hypothetical negotiation, Google had begun implementing changes to the accused products. I understand that one basis for I/P Engine's infringement theory at trial was the use of QBB disabling and that QBB disabling was removed from AdWords on November 5, 2012, from AdSense for Search on February 14, 2013, and from AdSense for Mobile Search on January 28, 2013.⁴⁴

32. In addition, I understand that Google has changed the accused systems to remove the functionality I/P Engine accused of infringement.⁴⁵ I further understand that Google had already begun implementing these changes before the jury reached a verdict and before entry of final judgment.⁴⁶ I am not aware of any opinion that I/P Engine has offered that this redesigned system infringes the patents-in-suit.

33. I further understand that Defendants contend that, (a) these changes were technically feasible and relatively easy to implement in the normal course of business (including in the normal course of software updating and maintenance); and (b) these changes are acceptable to Defendants, their advertisers, and their users. I have further been informed by Mr. Furrow that these changes have not had any discernible negative impact on revenues or the

⁴⁴ See Furrow Declaration.

⁴⁵ Furrow Declaration.

⁴⁶ Trial Tr., p. 1069 (“We are working on changes to our system now whereby we will no longer need to limit the number of ads that we look at for these purposes.”).

performance of the AdWords system.⁴⁷ The availability of a non-infringing design around at the time of the hypothetical negotiation would weigh in favor of a lower royalty payment. Implementation of a non-infringing design around would further result in the end of any running royalty.

34. I understand that I/P Engine contends, based upon a slide from a draft document entitled “Cumulative Product Impact on RPM” from July 2006, that use of the patents increases Google’s search advertising revenue by 20.9%.⁴⁸ The document actually shows that when SmartAds was first implemented in 2004, it only resulted in a 7.8% increase in search advertising revenue.⁴⁹ Further, it is not possible to determine from the draft presentation what portion of the 7.8% increase in revenue is attributable to the patents-in-suit, as opposed to other features of Google’s systems (e.g., the algorithms Google uses to compute pCTR’s). Because it is not possible to disaggregate Google’s contributions from the contributions of the patents-in-suit using this presentation, this presentation is of limited, if any, value in determining an apportionment factor. Given the improvements to Google’s systems that Google continually implemented over the eight-year period between 2004 and 2012, prudent negotiators at the November 2012 hypothetical negotiation would not have agreed to use apportionment factors derived from data over six years old nor would they assume that SmartAds would have the same incremental impact on search advertising revenue six years in the future.

35. Further, real-world evidence demonstrates that this presentation is not a reliable indicator of the patents’ contribution to Google’s revenue. As described in my report, the initial experiment Google performed using SmartAds resulted [REDACTED]

⁴⁷ Furrow Declaration.

⁴⁸ Kammerud Decl., Ex. 24, PDX-72; Trial Tr., p. 909.

⁴⁹ Kammerud Decl., Ex. 24, PDX-72; Trial Tr., pp. 907-908.

[REDACTED]⁵⁰ In addition, on July 3, 2004, two days after the roll-out to 90% of its AdWords users, Google noticed [REDACTED] as a result of the implementation of the Smart Ads system.⁵¹ Whether looking at the initial experiments with Smart Ads on AdWords, or the full launch of Smart Ads on AdWords, the result [REDACTED]

[REDACTED] Similarly, when Google first launched Smart Ads on AdSense for Search, Google observed [REDACTED]

[REDACTED]⁵² The limited impact of the patents-in-suit to Smart Ads is confirmed by the fact that the removal of the accused filtering functions from the accused systems has had no statistically significant impact on Google's revenue.⁵³ To the extent I/P Engine contends it still would rely upon the draft document entitled "Cumulative Product Impact on RPM" from July 2006 at the November 2012 hypothetical negotiation, Google would counterbalance I/P Engine's reliance through use of the results that Google obtained during initial experiments or the initial rollout.

36. I also understand that the jury did not accept I/P Engine's argument at trial that the appropriate apportionment rate is 20.9%. Therefore, the jury did not agree with I/P Engine's reliance on this chart. As stated in my previous declaration (D.N. 806 at 4-5), the jury effectively applied an apportionment rate of, at most, 2.8% to Google's Accused Product revenues.

37. Given the continuous improvements and updates Google implemented between 2004 and 2012, the relative contributory value of the patents-in-suit to Google's systems would

⁵⁰ Kammerud Decl., Ex. 18.

⁵¹ Kammerud Decl., Ex. 19.

⁵² Kammerud Decl., Ex. 20.

⁵³ Furrow Declaration.

diminish over time, and given the availability of a non-infringing substitute, these *Georgia-Pacific* considerations would place downward pressure on the reasonable royalty payment.

I. *Georgia-Pacific* Factor Twelve: The portion of the profit of the invention that may be customary to allow for the use of the invention or analogous inventions

38. There is no customary royalty payment associated with the claimed teachings of the patents-in-suit.

39. I understand that I/P Engine contends that certain licenses executed between Overture and three non-parties tend to show a customary licensing rate. This assertion is flawed for several reasons (based upon my discussions with Dr. Ungar). First, the '361 patent, one of the patents that was the subject of those licenses, is a seminal patent in the internet advertising industry.⁵⁴ Second, the Overture licenses were executed in 2005, seven years before the November 2012 hypothetical negotiation.⁵⁵ Third, I am not aware of any credible evidence that the Overture patents are comparable to the patents in suit. I/P Engine's technical expert testified at trial that they were comparable only "in the general sense."⁵⁶ Both I/P Engine's and

⁵⁴ Trial Tr., pp. 1610-1611; Ugone Report, p. 95. See also Microsoft's *Yahoo! Interest: Patently Paid Search*, WebPro News (July 9, 2008), available at <http://www.webpronews.com/microsofts-yahoo-interest-patently-paid-search-2008-07> ("The paid search/bidding for placement technology patent known as '361, developed by the company that became Overture (later acquired by Yahoo), loomed out of the past. . . . Microsoft's proposed acquisition of Yahoo gives it control of that valuable patent."); Mohammad Talha, *Why Microsoft Really Wants Yahoo's Search*, available at <http://cybersystem.blogspot.com/2008/12/why-microsoft-really-wants-yahoos.html> (describing the '361 patent as a "crown jewel"); Usman Latif, *What Microsoft Wants From Yahoo*, TechUser.net, available at <http://techuser.net/microsoft-yahoo.html> ("Also known as the '361 patent, it covered the basic paid-search bid-for-placement advertising model. The '361 patent effectively granted Overture the right to monopolize the lucrative US paid-search market and subsequently dictated the evolution of the global paid-search market. . . . Yahoo now effectively dictated what Microsoft could and could not do in the paid-search market. . . . Both companies' business models depended on having access to '361 patent . . .").

⁵⁵ D.N. 824, p. 5.

⁵⁶ Trial Tr., p. 630.

Defendants' technical expert testified about differences between the '361 patent and the patents-in-suit.⁵⁷ Therefore, the Overture licenses, which did not concern the patents-in-suit, did not involve either Google or I/P Engine, and occurred seven years prior to a November 2012 hypothetical negotiation, are not as probative to the outcome of the November 2012 hypothetical negotiation as the actual sale price of the patents-in-suit and the Carl Meyer agreement with Google.

J. Conclusion

40. In the Ugone Report, I opined that the outcome of the March 2004 hypothetical negotiation would have been a lump-sum royalty payment between \$3 million and \$5 million. The outcome of a November 2012 hypothetical negotiation would take into account the changes in the circumstances between a March 2004 hypothetical negotiation and a November 2012 hypothetical negotiation. These changes include the following.

41. Relatively more weight would be placed upon the comparable license agreements that occurred close to the time of the November 2012 hypothetical negotiation (i.e., Google's patent purchase agreement with Carl Meyer for \$3.55 million in December 2008 and I/P Engine's purchase of the patent family including the patents-in-suit for \$3.2 million in June 2011).

42. Relatively less weight (if any) would be placed upon the Overture license agreements which relate to seminal technologies that are significantly more valuable than the patents-in-suit and occurred over seven years prior to the November 2012 hypothetical negotiation.

⁵⁷ Trial Tr., pp. 716-717, 1277-1278.

43. Given Google's continuous updates and improvements to its advertising system, including removal of the accused "filtering" functionality, Google would not agree to use a royalty base apportionment factor that was calculated using a draft presentation dated over six years prior to the November 2012 hypothetical negotiation and which overstated the relative contribution of I/P Engine's patented technology. The apportionment factor based upon the jury verdict (i.e., 2.8%) would be the starting point for the post-verdict analysis and would be given relatively more weight.

44. The availability of the alternative designs that Google had begun implementing at the time of the negotiation and has since completed implementation would create downward pressures on the to-be-negotiated royalty payment associated with a November 2012 hypothetical negotiation. The implementation of the design around also would shorten the duration of the license that Google would need to obtain to approximately seven months. A license of seven-month duration would substantially reduce the amount of any lump sum payment Google would be willing to pay because a license would not be required for the full life of the patents (i.e., until April 2016).

45. Given the above considerations (and the considerations discussed in the Ugone Report and presented at trial), the likely outcome of a hypothetical negotiation between I/P Engine and Google in November 2012 would be a lump-sum royalty payment no greater than \$3.5 million. This lump-sum royalty payment would cover Google's use of the patents-in-suit during the post-judgment time period that extends through the expiration of the patents-in-suit on April 4, 2016.

IV. Evaluation of Dr. Becker's Running Royalty Opinion

46. Dr. Becker opined that Google and I/P Engine during a November 2012 hypothetical negotiation would have agreed to a 5% running royalty applied to a royalty base of 20.9% of Google's revenues from AdWords, AdSense for Search, and AdSense for Mobile Search.⁵⁸ Dr. Becker failed to acknowledge the following important changes in the circumstances between a 2004 hypothetical negotiation and a 2012 hypothetical negotiation.

46.1 Dr. Becker failed to alter (i.e., decrease) the relative weight that would be placed upon the Overture agreements, which occurred over seven years prior to the November 2012 hypothetical negotiation.

46.2 Dr. Becker failed to place any weight upon the bidding process in Spring 2011 (i.e., close to the time of the November 2012 hypothetical negotiation) that resulted in a market-determined value indicator for the Patents-in-Suit of \$3.2 million.

46.3 Dr. Becker failed to place any weight upon the incremental improvements Google made to its advertising systems between 2004 and 2012.

46.4 Dr. Becker failed to consider that the claimed apportionment factor of 20.9% was derived using data over six years prior to the November 2012 hypothetical negotiation.

46.5 Dr. Becker failed to place any weight upon the apportionment factor determined by the jury verdict (i.e., 2.8%).

46.6 Dr. Becker failed to take into consideration the availability of Google's alternative design that it had already begun implementing at the time of the 2012 negotiation.

47. Dr. Becker's incorrect royalty payment structure, overstatement of the claimed royalty base apportionment, and overstatement of the claimed royalty rate are discussed below.

A. Form of the Agreement

48. Dr. Becker does not provide any explanation for his opinion that Google and I/P Engine would agree to a running royalty in 2012 instead of a lump-sum agreement. As described

⁵⁸ D.N. 824, p. 6.

previously, (1) Google has a preference for lump-sum agreements, (2) I/P Engine purchased the patents-in-suit for a lump sum amount, (3) [REDACTED] (4) rights in the patents-in-suit only have been exchanged for lump-sum payments, and (5) the Carl Meyer purchase agreement was for a lump sum amount. One apparent basis for Dr. Becker's running-royalty opinion is the Overture agreements. However, the Overture agreements did not involve the patents-in-suit, did not involve Google or I/P Engine, were related to seminal technologies that are significantly more valuable than the technology covered by the patents-in-suit, and were executed in 2005. Dr. Becker's assumption that a 2012 negotiation would result in a running royalty is contradicted by the economic and documentary evidence associated with the patents-in-suit and other economic evidence during the intervening years.

49. Although the jury found that a hypothetical negotiation between Lycos and Google would result in a 3.5% running royalty, Dr. Becker's testimony in support of that finding was premised on a 2004 date for the hypothetical negotiation. The agreements that occurred close in time to the November 2012 hypothetical negotiation had a lump-sum structure (i.e., the Carl Meyer agreement and I/P Engine's purchase of the patents-in-suit from Lycos). Furthermore, Google's significant contributions to the commercial success of the Accused Products over an eight-year time period diminishes the relative importance of the Accused Functionality – weighing in favor of a lump-sum royalty payment structure at the November 2012 hypothetical negotiation .

B. Apportionment of the Royalty Base

50. Dr. Becker's claimed royalty base apportionment factor of 20.9% is overstated and does not appropriately take into account the changed circumstances between a March 2004 hypothetical negotiation and a November 2012 hypothetical negotiation.

51. At a November 2012 hypothetical negotiation, as a prudent licensee, Google would not have agreed to use apportionment factors that were over six years old. The apportionment factor that Dr. Becker opined to (i.e., 20.9%) is based upon a draft Google presentation dated June 2006 (i.e., over six years prior to the November 2012 hypothetical negotiation date).⁵⁹ The presentation contains actual revenue figures through Q1 2006 and forecasted figures through Q4 2007.⁶⁰ Dr. Becker calculated an apportionment factor of 20.9% using forecasted figures for Q4 2007 and claims that this apportionment factor should be held constant for all future years (and would be accepted by the parties during a November 2012 hypothetical negotiation).⁶¹ Given that Google constantly makes improvements to its advertising systems, Google would not agree to use (and I/P Engine would not realistically expect to impose) apportionment factors derived based upon data over six years prior to the November 2012 hypothetical negotiation. Contrary to Dr. Becker's assertion, a prudent licensee would not agree to use six-year-old apportionment data through the expiration of the patents-in-suit in April 2016. Further, at the time of the 2012 hypothetical negotiation, Google was in the process of removing the alleged "filtering" functionality upon which Dr. Becker based his 20.9% apportionment rate. Therefore, Google would not agree to use this presentation as the basis for a royalty base apportionment.

⁵⁹ Kammerud Decl., Ex. 24, PDX-72.

⁶⁰ Kammerud Decl., Ex. 24, PDX-72.

⁶¹ Kammerud Decl., Ex. 24, PDX-76.

52. Google has implemented hundreds of changes to its SmartAds system since Q1 2006, including removing the alleged “filtering” functionality. Given that Google makes many changes to the advertising system per quarter, Google would not agree to the same apportionment factors presented for the period prior to judgment in this matter.

53. As discussed in my report, the claimed apportionment factor of 20.9% fails to exclude accused revenues associated with incremental improvements made by Google. Dr. Becker estimated the contribution of Smart Ads, disabling, and promotion to be only 7.8% as of Q3 2004, when the SmartAds system was first launched.⁶² The subsequent incremental improvements in the revenue impact from 7.8% to 20.9% are most likely attributable to Google’s own contributions beyond the implementation of the claimed teachings of the patents-in-suit. As a prudent licensee, Google would not be willing to make royalty payments (or future royalty payments) to I/P Engine based upon Google’s continuous contributions that lead to a higher revenue impact over time, especially when those improvements occurred after the date of the March 2004 hypothetical negotiation.

54. The limited impact of the patents in suit is confirmed by real-world evidence. As described above, the initial experiment Google performed using SmartAds resulted in a [REDACTED] [REDACTED]⁶³ This includes the immediate impact of SmartAds when it was first launched and the fact that that removal of the accused filtering functions from the accused systems has had no statistically significant impact on Google’s revenue.⁶⁴

⁶² Kammerud Decl., Ex. 24, PDX-72; Trial Tr., p. 907.

⁶³ Kammerud Decl., Ex. 18.

⁶⁴ Furrow Declaration.

55. In addition, the claimed apportionment factor of 20.9% is not supported by the jury verdict. As described in my previous declaration,⁶⁵ the jury effectively applied an apportionment rate of 2.8%. This suggests that the jury did not agree with Dr. Becker's 20.9% apportionment methodology and instead attributed much of the value of the SmartAds, disabling, and promotion features to unpatented technology contributed by Google.

56. As a result, a 2.8% apportionment rate, as found by the jury, would be more appropriate if a running royalty were awarded than a 20.9% apportionment rate. Given Google's contributions to the revenues associated with the Accused Functionality over time, Dr. Becker has not presented any viable negotiating considerations to increase the apportionment factor above that determined by the jury.

C. Dr. Becker's Running Royalty Rate Opinion

57. Dr. Becker's claimed royalty rate of 5% is overstated and does not appropriately take into account the changed circumstances between a March 2004 hypothetical negotiation and a November 2012 hypothetical negotiation.

58. Certain value indicators that occurred after the March 2004 hypothetical negotiation would have occurred prior to the November 2012 hypothetical negotiation (i.e., *ex-post* indicators of value have become *ex-ante* indicators). These value indicators are: (a) the purchase of the patent family that includes the patents-in-suit by I/P Engine for \$3.2 million in June 2011;⁶⁶ (b) [REDACTED]

[REDACTED]

[REDACTED]

⁶⁵ D.N. 806, pp. 4-5.

⁶⁶ DX-019.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]⁶⁸ and (d)

Google's patent purchase agreement with Carl Meyer relating to comparable patents for \$3.55 million in December 2008.⁶⁹

59. Given the proximity in time between a November 2012 hypothetical negotiation and comparable license agreements relating to the patents-in-suit or comparable technology (i.e., the Google/Carl Meyer agreement and Lycos' sale of the patent family including the patents-in-suit to Smart Search Labs), relatively more weight would be placed upon these agreements by negotiators than the Overture license agreements (presented by Dr. Becker) which occurred over seven years prior to the November 2012 hypothetical negotiation and did not involve any party to the current hypothetical negotiation.

60. The Carl Meyer agreement and Lycos' sale of the patents-in-suit also would be given more weight than the Overture license agreements because the Overture license agreements relate to seminal technologies that are significantly more valuable than the technology covered by the patents-in-suit. Google would have known the seminal value of the Overture patents because Google entered into a settlement license agreement with Overture relating to these patents. The significant differences between Overture's technologies and the technology covered by the patents-in-suit does not warrant a royalty rate at the upper bound of the royalty rate range in the Overture license agreements (i.e., 5%) as Dr. Becker has opined. Given the seminal nature of the Overture patents, the large number of patents included in the Overture agreements, and Overture's proven success in commercializing the Overture patents, a

⁶⁷ Kammerud Decl., Ex. 23, pp. 122-37; Kammerud Decl., Exs. 7, 8.

⁶⁸ D.N. 534 (Ugone Report), p. 41; Kammerud Decl., Ex. 21.

⁶⁹ DX-090.

significant downward adjustment would need to be made to the royalty rate range in the Overture license agreements in deriving a reasonable royalty rate for the patents-in-suit.

61. In addition, the bidding process relating to Lycos' sale of the patents-in-suit reflect the market value of the patents. Dr. Becker claims that in contrast to I/P Engine and its parent company, Vringo, which are "sophisticated licensors,"⁷⁰ Lycos' parent company in 2004 (i.e., Terra) "was unaware and uninterested in the value of Lycos' patent portfolio."⁷¹ Dr. Becker failed to acknowledge that just prior to the November 2012 hypothetical negotiation, there was a bidding process for the patents among three parties (i.e., Mr. Staykov, Altitude, and Hudson Bay Capital). After Mr. Staykov contacted Lycos to express an interest in purchasing the patent family that included the patents-in-suit, Lycos proactively sought other bidders for this patent family. Through the bidding process in Spring 2011, the value of the patent family increased to its market value. The purchase price that resulted from this bidding process (i.e., \$3.2 million lump-sum amount) reflected the market assessment of the patent family that included the patents-in-suit. The result of this bidding process (i.e., a \$3.2 million lump-sum purchase price) is of particular relevance to a November 2012 hypothetical negotiation given that it occurred

⁷⁰ I understand that I/P Engine is owned by Vringo, Inc. On November 6, 2012, the date of the jury verdict, shares of Vringo's stock sold for \$3.57 per share, and that there were 81.89 million shares outstanding, giving the company a market capitalization of approximately \$292 million. I therefore do agree that both Vringo and Google, as well as Lycos, were sophisticated negotiators.

⁷¹ Becker Declaration, pp. 3-4. Mr. Blais' deposition testimony, which Dr. Becker cited, does not support Dr. Becker's assertion that "Terra was unaware and uninterested in the value of Lycos' patent portfolio." Mr. Blais testified that he did not have knowledge of the negotiations relating to Terra's purchase of Lycos and Terra's subsequent sale of Lycos to Daum. Mr. Blais testified that he did not know whether the parties discussed the patents-in-suit during these negotiations. (Kammerud Decl., Ex. 23, p. 30 ("Q: Do you know anything at all about the negotiations related to Terra's purchase of Lycos? A: No. Q: Is it relatedly – do you have any knowledge as to whether the parties discussed the '420 patent in connection with the purchase? A: No. Q: Or the '664 patent? A: No. ")).

close in time to the November 2012 hypothetical negotiation and directly related to the patents-in-suit.

62. Dr. Becker claims that because there was no existing business relationship between I/P Engine and Google (as existed in the case of Lycos and Google), there would be upward pressure on the reasonable royalty rate relative to the royalty rate resulting from a 2004 hypothetical negotiation.⁷² This argument is flawed. Although I/P Engine does not have an existing business relationship with Google, it is still true that I/P Engine would view Google as a very attractive licensee given Google's strong brand name and commercial success and I/P Engine's desire to monetize the patents-in-suit.

63. Also, the relative contribution of the Accused Functionality to the commercial success of Google's accused advertising systems would diminish over time given Google's continuous contributions and updating of features and the eventual removal of the accused filtering functionality in 2012 and 2013. The declining relative importance of the Accused Functionality and the (at that time) imminent removal of the accused filtering functionality would place downward pressure on the reasonable royalty payment relative to the royalty rate resulting from a 2004 hypothetical negotiation. Dr. Becker's claimed royalty rate opinion for a November 2012 hypothetical negotiation does not take this changed circumstance into account.

I declare under penalty of perjury that the foregoing is true and correct.



Keith R. Ugone, Ph.D.

⁷² D.N. 824, pp. 5-6.

DATED: May 13, 2013

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CERTIFICATE OF SERVICE

I hereby certify that on May 13, 2013, I will electronically file the foregoing with the Clerk of Court using the CM/ECF system, which will send a notification of such filing (NEF) to the following:

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